

# SWP Project Priority List

*Draft Dec 2000*

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
A	11	20000	2001	Squaw Valley County Water Dist	3110020 04	The attached Draft Squaw Valley source Water Assessments describes the types of contaminants and the associated PCAs. The document also provides a relative ranking of the well exposure to potential sources of contamination.	Squaw Valley PSD Sourcewater Protection Program The project will identify, locate and map test wells, monitoring wells and abandoned wells that may create a conduit for contaminants to enter the groundwater. More than 50 of these wells exist. A plan for test well abatement will be developed. Public education to include trailhead signal and distribution of literature will be done. A groundwater protection plan will be implemented.	\$75,000	12/1/2000
	11	100000	2000	SOUTH SAN JOAQUIN IRRIGATION DISTRICT	5010040 02	Primary concern is microbial contamination from 1)cattle activities on watershed, 2) sanitary facilities (pit toilets) in the recreational areas, and 3) body contact recreation at the reservoir. This project would address all three sources.	Project will include berming and fencing the canal at critical areas to preclude cattle access, rerouting selected drains to prevent direct discharge of ag drainage to canal, construction of new sanitary facilities at the park to eliminate pit toilets, posting signs at park to advise public that the reservoir is a public water supply, and preparation of public education materials.	\$2,000,000	1/1/1998
	11	750000	2000	SF Public Utilities Commission	3810001 122	(SFPUC No. 21) Contaminants of concern are essentially microbial, however, there is the potential from volatile organic compounds. The sources of these contaminants are farms ranches, dwellings and other developments within the hydrologic boundary of the watershed.	These contaminant sources would be addressed by the acquisition of critical watershed land which is determined to be within high water quality vulnerability (see Attachment for continuation)	\$2,000,000	12/1/1999
	7	25000	2000	Santa Fe I.D.	3710023 01	See Attachment	See Attachment	\$2,000,000	12/1/1999
	7	750000	2000	SF Public Utilities Commission	3810001 112	(SFPUC No. 6) An existing diversion structure to intercept contaminated run off has an unlined channel that allows seepage to Moccasin Reservoir.	The contaminants of concern would be addressed by lining with concrete the Grizzly Creek diversion channel to prevent seepage contaminated with microbials and chemicals from reaching Moccasin Reservoir.	\$500,000	12/1/1999

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
A	7	750000	2000	SF Public Utilities Commission	3810001 118	(SFPUC No. 16) Microbial contaminants for human sanitray waste associated with undeveloped overnight backpacking and horse camping too close to lakes, streams and rivers in the watershed.	The contaminants of concern would be addressed by increasing the number of signes within Yosemite National Park (Hetch Hetchy & Eleanor Watersheds) using NTS sign pattern and design. These signs would inform users of regulations and proper waste disposal techniques.	\$10,000	12/1/1999
	7	750000	2001	SF Public Utilities Commission	3810001 117	(SFPUC No. 13)The existing Priest Reservoir diversion structure which intercepts contaminated run off has periodically been over topped during intense fall storm events.	The contaminants of concern would be addressed by improving existing diversion structure on Rattlesnake Creek to prevent run off contaminated with microbials and chemicals from reaching Priest Reservoir.	\$200,000	12/1/1999
	5	1200000	2000	East Bay MUD	0110005 19	Microbial (Cryptosporidium)-grazing. Disinfection By-products (TOC)-introduced from ungrazed lands.	Through literature searches lab studies and field studies to determine the Microbial and TOC inputs from grazed and ungrazed watershed lands.	\$275,000	12/1/1999
	3	2000	2000	North Marin WD - Pt. Reyes	2110006 22	Bacterial and other microbial contamination/surface water influence at well site due to improperly destroyed well.	Destroy well per State standards to prevent contamination of aquifer source.	\$5,000	12/1/1999
	3	2000	2000	North Marin WD - Pt. Reyes	2110006 21	Micribial and chemical contamination associated with impacts of flooding of Lagunitas Creek on Wells 2 and 3.	As determined by feasibility study-modifications to wellheads, well casings, enclosures and surface grading and drainage. Study due 8/31/2000 per 10/28/99 Water Supply Permit.	\$100,000	12/1/1999
	0	1200000	2001	East Bay MUD	0110005 20	Cryptosporidium and other pathogens have been identified with grazing activity near reservoirs and tributaries. This program would address direct access of cattle and horses to free water in ponds, streams and reservoirs in the East Bay Watershed. (also see attached)	EB watershed fencing to mitigate Cryptosporidium contamination. The project would (1) outfence approzimately 30 ponds to prevent direct access of domestic animals ot the ponds and supply alternative trough watering facilities at each pond site, and (2) address up to 38 miles of fencing to be added or replaced around the reservoirs and tributaries to prevent direct access of domestic animals.	\$2,000,000	12/1/2000

**Total of projects in SWPP Category A= 11 projects**

**Total Cost for Projects in Category A: \$9,165,000**

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
B	3	5500	2000	Citizens Utilities Comp of CA	4110010 21	Nitrate contamination in the Airport 3 and North Airport 2 wells is apparently migrating from agricultural property to the east. Nitrate concentrations often exceed the MCL. A shallow aquifer and proximity to the source make mitigation impossible.	Our project would focus on evaluating adjacent agricultural practices and education on BMPs, land acquisitions and /or establishing conservation easements.	\$150,000	12/1/1999
	0	5160	2001	GOLDEN HILLS CSD	1510045 07	Rising nitrate levels due to every residence using septic systems. Ground water management.	Complete source water protection plan. Hire necessary engineers and hydrologists.	\$50,000	12/1/2000
<b>Total of projects in SWPP Category B= 2 projects</b>									
<b>Total Cost for Projects in Category B:</b>					<b>\$200,000</b>				
C	5	7200	2000	Los Osos CSD	4010016 01	Septic system abatement Project	See attachment A	\$2,000,000	12/1/1999
	5	7200	2000	Los Osos CSD	4010016 03	Groundwater WQ Monitoring Program-See attachment A	See attachment A	\$500,000	12/1/1999
	3	3725	2000	CUCC - Arden	3410045 04	Nitrate contamination in the Fulton Fair Oak well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeing one-half the MCL at this well (in an established subdivision) suggest a localized source.	We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study,we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in protection areas, land acquisition, education on BMPs, etc.	\$125,000	12/1/1999
	3	18232	2000	CUCC - Rosemont	3410034 06	Nitrate contamination in the Montazuma well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.	We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in protection areas, land acquisition, education on BMPs, etc.	\$125,000	12/1/1999
	3	26075	2000	CUCC - Suburban	3410010 05	Nitrate contamination in the Malaga well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.	We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in protection areas, land acquisition, education on BMPs, etc.	\$125,000	12/1/1999

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
C	3	26075	2000	CUCC - Suburban	3410010 07	Nitrate contamination in the Whitewater well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.	We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in protection areas, land acquisition, education on BMPs, etc.	\$125,000	12/1/1999
	3	26075	2000	CUCC - Suburban	3410010 06	Nitrate contamination in the Point Reyes well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.	We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in protection areas, land acquisition, education on BMPs, etc.	\$125,000	12/1/1999
	3	42000	2000	CUCC - Lincoln Oaks	3410013 10	Nitrate contamination in the Hemlock well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.	We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in protection areas, land acquisition, education on BMPs, etc.	\$125,000	12/1/1999
	3	137738	2000	SAN BERNARDINO CITY	3610039 17	The City of San Bernardino relies 100% on 47 groundwater wells for its domestic water supply. The Bunker Hill Groundwater Basin has identified plumes of VOCs, nitrates, DPCP, radiological, elevated levels of TDS, and perchlorate in excess of current MCLs.	See attached description of project	\$400,000	12/1/2000
<b>Total of projects in SWPP Category C= 9 projects</b>									
<b>Total Cost for Projects in Category C:</b>					<b>\$3,650,000</b>				
D	11	46900	2000	South Tahoe PUD - Main	0910002 01	MTBE contamination from leaking underground fuel tanks has contaminated or is threatening to contaminate 12 District wells. The 12 wells have been shut off.	The district intends to implement a groundwater management plan, in full compliance with DWSAP assessments, that emphasizes the "early detection and immediate response" to MTBE/gasoline releases. To date, the District has prepared a draft ordinance and budget for this plan (enclosed)	\$1,385,000	12/1/1999

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
D	3	2000	2001	North Marin WD - Pt. Reyes	2110006 20	Salt water intrusion potential due to tidal hydraulics and pumping characteristics.	Construct new well(s) upstream and outside tidal influence with associated transmission line to treatment facility.	\$1,100,000	12/1/1999
<b>Total of projects in SWPP Category D= 2 projects</b>									
<b>Total Cost for Projects in Category D:</b>					<b>\$2,485,000</b>				
F	7	750000	2000	SF Public Utilities Commission	3810001 116	(SFPUC No. 11) Recreational activities and unauthorized activities in the Cherry and Eleanor watersheds can cause microbial contamination or chemical releases to reach surface water sources.	The contamination of concern would be addressed by developing pamphlets and other educational materials for distribution to all users of the Eleanor and Cherry Creek watersheds.	\$10,000	12/1/1999
	7	750000	2001	SF Public Utilities Commission	3810001 120	(SFPUC No. 18) Contaminants of concern are sanitary and industrial wastes. A septic system that receives sewage from residential units and one industrial facility has periodically made sewage releases to the watershed.	These contaminants would be addressed by upgrading the septic system. The upgrades include the following: replace the collection system, install two lift pumps and relocate septic tank and leach field away from the Toulumne River, which is the major tributary into the San Francisco Public Utilities Commission's Hetch Hetchy Reservoir.	\$800,000	12/1/1999
	7	750000	2001	SF Public Utilities Commission	3810001 113	(SFPUC No. 7) An existing diversion structure has periodically over topped during intense storm events allowing contaminated water to enter Moccasin Reservoir.	The contaminants of concern would be addressed by constructing check dams at critical locations in the watershed to slow the hydrologic response of Moccasin Creek to prevent microbial and chemical contaminants from entering Moccasin Reservoir.	\$2,000,000	12/1/1999
	4	750000	2000	SF Public Utilities Commission	3810001 126	(SFPUC No. 27) Microbial and physical contaminants are contributed to the water supply by poorly maintained roads that cause erosion and bank disturbance in the watersheds.	This project will improve existing watershed roads, drainage structures and roadside slopes that are necessary for watershed activities. Improvement of these roads will reduce the potential for erosion into the reservoir and lower the contribution of microbial and physical contaminants.	\$1,500,000	12/1/1999
	4	750000	2000	SF Public Utilities Commission	3810001 115	(SFPUC No. 10) Microbial contamination, including fecal coliform, Cryptosporidium, and Giardia, may be deposited directly into Priest Reservoir, an unfiltered source water reservoir, from wildlife along the reservoir banks. Sediments and turbidity also are contributed from reservoir fluctuation, wind, and runoff from storm events.	Alternatives including perimeter fencing, bank stabilization using rack and rip-rap, and improvements to diversion structures will be evaluated and implemented for ability to limit wildlife access and storm runoff effects.	\$1,500,000	12/1/1999

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
F	3	3600	2000	Amador County Water Agency- Sutter Creek	0310003 06	System uses a 24 mile open canal, mostly earthen, to transport source water. The Canal is exposed to storm water run-off and livestock. See attached study.	Watershed management projects include fencing to prevent access from livestock, storm water drainage diversions, and related improvements.	\$1,131,000	12/1/1999
	3	55000	2000	North Marin Water District	2110003 25	Horse manure and associated contaminants (microbials, organic precursors to DBP) from stable operation adjacent to tributary to Stafford Lake.	Develop a cooperative horse manure recycle program in conjunction with Marin County Stormwater Control Program.	\$15,000	12/1/1999
	3	55000	2000	North Marin Water District	2110003 20	Storm events increase level of runoff with microbial and agricultural runoff (cattle) and sediments (erosion) impacts to Stafford Lake.	Construct sediment dams on tributaries of concern.	\$60,000	12/1/1999
	3	55000	2000	North Marin Water District	2110003 23	Storm events increase level of microbial and agricultural runoff (cattle) and sediments (erosion) impacts to Stafford Lake.	Buffer strip development with possible purchase of conservation easement son ranch property.	\$100,000	12/1/1999
	0	500000	2001	Sonoma County Water Agency	4910020 05	The River Monitoring Stations Project will identify a wide range of contaminants that might be introduced to the water source along the Russian River corridor through contaminating activities such as spills and other discharges of chemical contaminan	Placement of water quality monitoring probes at various locations along the Russian River will measure dissolved oxygen, pH, temperature, turbidity, depth, and conductivity. Unanticipated changes in these metrics will alert the Agency of possible contaminants prior to intake to the water transmission system.	\$482,000	12/1/1999
<b>Total of projects in SWPP Category F= 10 projects</b>									
<b>Total Cost for Projects in Category F:</b>					<b>\$7,598,000</b>				
H	7	160400	2000	Sweetwater Authority	3710025 01	Contaminants include microbial and chemical constituents associated primarily with urban and rural residential development.	Funding would be used to purchase property in sensitive areas in order to provide control over potential microbial and chemical contamination and extend the Authority's ability to protect its source waters. Project will also include additional watershed monitoring and public education. See attached.	\$900,000	12/1/1999
	7	750000	2000	SF Public Utilities Commission	3810001 114	(SFPUC No. 9) Microbial contaminates from human sanitary waste associated with unrestricted boat-in camping on the shore of Cherry Lake.	The contaminants of concern would be addressed by providing additional signing at the Cherry Lake boat launch that describes appropriate regulations and informs users of proper waste disposal methods.	\$3,000	12/1/1999

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
H	7	750000	2000	SF Public Utilities Commission	3810001 124	(SFPUC No. 23) A concentrated animal facility at O'Shaughnessy Compound has the potential to contaminate the Hetch Hetchy reservoir less than 2,500 feet from the SFPUC's potable water intake.	The contaminants of concern would be addressed by initiating water quality monitoring and manure sampling at O'Shaughnessy compound corral to assess the risk of contamination from manure and microbials.	\$10,000	12/1/1999
	7	750000	2000	SF Public Utilities Commission	3810001 123	(SFPUC No. 22) A concentrated animal facility at the Glen Aulin Sierra Camp has the potential to contaminate a tributary stream in the watershed.	The contaminants of concern would be addressed by instituting a water quality monitoring and manure sampling program at glen Aulin Sierra Camp corrals to assess the risk of contamination from manure and microbials.	\$10,000	12/1/1999
	7	750000	2000	SF Public Utilities Commission	3810001 125	(SFPUC No. 24) A concentrated animal facility at Tuolumne Meadows has the potential to contaminate a primary stream in the Hetch hetchy watershed.	The contaminants of concern would be addressed by initiating water quality monitoring and manure sampling program at Tuolumne Meadows corrals to assess risk of contamination from manure and microbials.	\$10,000	12/1/1999
	7	750000	2002	SF Public Utilities Commission	3810001 121	(SFPUC No. 20) Microbial contaminants from human sanitary waste are associated with concentrated recreational sites, such as group camping facilities at remote locations.	The contaminants of concern would be addressed by removing pit toilets and replacing them with composting toilets at Lake Eleanore campground which is adjacent to the lake.	\$50,000	12/1/1999
	4	750000	2000	SF Public Utilities Commission	3810001 111	(SFPUC No. 1) Microbial contamination from run-off and erosion of banks may be attributed to disrepair of the Alameda Creek tunnel outfall which discharges diverted water into the Calaveras Reservoir.	The contaminants of concern will be addressed by improvements to the tunnel. The slopes on either side of the tunnel will be stabilized and debris will be cleared, which will reduced the contribution of microbial contamination and sediment deposition into Calaveras Reservoir. Preliminary engineering studies are underway.	\$250,000	12/1/1999
	4	750000	2002	SF Public Utilities Commission	3810001 119	(SFPUC No. 17) Microbial contaminants from septic system for office, residence and bunk-house at Early Intake have periodically been released to the watershed.	The contaminants of concern would be addressed by improving the septic system. The improvements include the following: replace and relocate piping and leach field. Construct lift pump facility to lift sewage to new leach field.	\$40,000	12/1/1999
	3	1194	2000	CUCC - Isleton	3410012 02	The Isleton 2 well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination	We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999

SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
H	3	3725	2000	CUCC - Arden	3410045 05	The Fulton/Fair Oak well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination	To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	3725	2000	CUCC - Arden	3410045 03	The Larch Ln well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination	We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	18232	2000	CUCC - Rosemont	3410034 05	The Southport well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination.	We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	18232	2000	CUCC - Rosemont	3410034 04	The Westporter well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination.	We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	21000	2000	CUCC - Antelope	3410031 04	The Davidson well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination	We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide Public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	31000	2000	CUCC - Parkway	3410017 11	The Rockhurst well periodically shows evidence of raw water total coliform presence an indicator of microbial contamination	We propose t initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	31000	2000	CUCC - Parkway	3410017 12	The Conrad well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination	To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	31000	2000	CUCC - Parkway	3410017 13	The Briggs well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination	To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999



SWP	BP	Pop.	FY	WS Name	Project No	WS Problem	Project Description	Costs	PreAppYR
H	3	31000	2000	CUCC - Parkway	3410017 14	The Stocker well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination	To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	3	42000	2000	CUCC - Lincoln Oaks	3410013 11	The Crosswoods well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination.	We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP	\$95,000	12/1/1999
	0	55000	2000	North Marin Water District	2110003 21	Microbial pollution potential from old park restroom facilities in zone A of Stafford Lake.	Design and construction of new waste holding systems as a cooperative effort with Marin County Parks.	\$250,000	12/1/1999
	0	55000	2000	North Marin Water District	2110003 24	Microbial pollution potential from older sewage collection system/force main serving golf course on watershed of Stafford water treatment plant.	Update system to current standards with pumping redundancy and spill protection.	\$100,000	12/1/1999
	0	55000	2000	North Marin Water District	2110003 22	Microbial from failing septic systems in zone A of Stafford Lake.	Seek voluntary repair of failing septic systems through a low interest loan program to qualified residents on Stafford watershed.	\$50,000	12/1/1999
<b>Total of projects in SWPP Category H= 22 projects</b>									
<b>Total Cost for Projects in Category H:</b>					<b>\$2,718,000</b>				
I	5	7200	2001	Los Osos CSD	4010016 02	Evaluation of Agricultural practices-See attachment A	See attachment A	\$100,000	12/1/1999
<b>Total of projects in SWPP Category I= 1 project</b>									
<b>Total Cost for Projects in Category I:</b>					<b>\$100,000</b>				
<b>Number of projects in SWP PPL= 57 projects</b>					<b>Grand Total:</b>		<b>\$25,916,000</b>		